REMARKS

Reconsideration of the application in view of the above amendments and following remarks is respectfully requested.

Applicants wish to thank the Examiner for consideration and acknowledgement of the Information Disclosure Statement and Form PTO-1449 submitted March 2, 2001. Applicants respectfully request consideration and acknowledgement of the Information Disclosure Statement and Form PTO-1449 submitted August 7, 2002, with the next communication from the United States Patent and Trademark Office.

Claims 1-76 are pending. Claims 22-35 and 46-76 are directed to a non-elected group and are herein canceled to further prosecution. Applicants retain the right to file one or more divisional applications directed to Claims 22-35 and 46-76, at a later date. Claims 1 and 9 are herein amended for clarity. Claim 5 is amended to be in independent form. Claims 1-21 and 36-45 are pending and are in condition for allowance for at least the reasons set forth herein.

Applicants gratefully acknowledge the indication in the Office Action that Claims 17-21 and 36-45 are allowed. Applicants further wish to thank the Examiner for the indication of allowable subject matter in Claims 5-8, should Claim 5 be rewritten in independent form. Applicants herein amend Claim 5 to be in independent form, incorporating the subject matter of the base claim (Claim 1) and all intervening claims (Claim 4). Applicants respectfully submit that Claims 5-8, and Claim 9 which now depends from Claim 5, are in condition for allowance.

Claims 1-4 and 9-16 stand rejected under 35 U.S.C. § 102(b) over Mattelmaki (U.S. Patent 5,149,448), specifically Figs. 1-2, or Baird et al. (U.S. Patent 5,470,472), specifically Figs. 1-2 and 6. Claims 1, 3, 4, and 9-16 stand rejected under 35 U.S.C. § 102(b) over Larsson et al. (U.S. Patent

5,759,397), specifically Figs. 3-5. Claims 1-4 and 9-16 are further rejected under 35 U.S.C. § 102(a) over Martensson et al. (U.S. Patent 5,968,372), specifically Fig. 10. Applicants respectfully traverse these rejections.

Mattelmaki discloses a drum filter for thickening lime sludge which incorporates water jet nozzles 20, 22 arranged under a scraper 16 for breaking up a precoat 26 and cleaning a filter cloth 8. (*see* Fig. 1 and column 3, lines 14-25).

Baird et al. disclose a rotating drum filter assembly for thickening lime sludge which incorporates liquid jets at 28, 30 on an ascending side of a drum 12 (*see* Fig. 1), as well as a shower head 124 mounted past the liquid jets 28, 30. As shown in Fig. 6 of Baird et al., a scraper 22 is arranged on a descending side 12b of the drum 12. Baird et al. disclose dispersing a filter cake on the ascending side of the drum using a liquid jet 150 from the water jet nozzles, as shown in Figs. 6 and 6A and disclosed at column 7, lines 1-13.

Larsson et al. disclose a rotatable filter for separating solid particles from a liquid mixture. As shown in Figs. 3 and 4, Larsson et al. disclose a drum 24, a stationary scraper 31 on the descending side of the drum 24, and a spray nozzle 32 located on the ascending side of the drum 24 for spraying water to remove the filter medium on wall 25 of the drum 24 (*see* column 4, lines 27-50, particularly lines 41-42).

Martensson et al. disclose a lime mud precoat filter cake removal system which incorporates the use of two nozzles 72, 74 (*see* Fig. 10) located on a descending side of a drum 84 below an adapter blade 82. The nozzles 72, 74 are used to wash and remove filter cake material from filter drum 84 (*see* column 4, line 28-67).

None of the cited references discloses or suggests a filter medium applicator being operatively arranged to apply a layer of filter medium to an outer surface of a drum, wherein the filter medium applicator is located adjacent the drum and between a scraper and a container containing a sample medium having components to be separated, as set forth in Claim 1 as amended herein. The amendment to Claim 1 is supported by the specification, for example, at page 11, lines 21-23, and at page 16, lines 18-21. Each of the cited references provides means for washing, dispersing, removing or otherwise cleaning filter cake from a surface, but each fails to disclose or suggest applying a filter medium to a surface as set forth in the claimed invention. For at least the above reasons, reconsideration and withdrawal of all of the rejections of Claims 1-4 and 9-16, under 35 U.S.C. § 102, are in order.

Claim 9 stands rejected under 35 U.S.C. §112, second paragraph, for lack of antecedent basis. Applicants herein amend Claim 9 to depend from Claim 5, providing antecedent basis for the language of Claim 9. For the same reasons that Claim 5 has been allowed, Applicants respectfully submit that Claim 9 is now in condition for allowance. Thus, reconsideration and withdrawal of this rejection are respectfully requested.

For at least the above reasons, Applicants assert all of Claims 1-21 and 36-45 are in condition for allowance. Reconsideration and prompt action in the form of a Notice of Allowance are thus respectfully solicited.

Should the Examiner deem that any further action by applicants or applicants' undersigned representative is desirable and/or necessary, the Examiner is invited to telephone the undersigned at the number set forth below.

Should any fees be necessary in connection with this filing, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 50-0925. Should an extension of time be due, the Commissioner is requested to hereby consider this a petition and to charge the appropriate extension of time fee to the deposit account.

Respectfully submitted,

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ATTACHMENT

1. (Amended) A rotating drum pressure differential filter comprising:

a drum rotatable about an axis of rotation, said drum including at least one wall having an inner surface that at least partially defines an inner chamber, and an outer surface, said wall including at least one opening for allowing the passage of fluid from outside the drum to said inner chamber;

a drive to rotate said drum about said axis of rotation;

a source of differential pressure to provide a lower pressure in said inner chamber than outside said drum;

a container for containing a sample medium having components to be separated, said container being positioned with respect to said drum such that, in operation, said drum is rotated about said axis of rotation and at least a portion of a layer of filter medium applied to the outside surface of said drum rotates within the container to contact a sample medium disposed within the container;

a scraper adapted to be positioned adjacent said drum for scraping a layer of filter medium from said drum; and

[an] a filter medium applicator adapted to be positioned adjacent said drum between said scraper and said container [for directing] and being operatively arranged to apply a layer of filter medium [toward] to said outer surface.

5. (Amended) A rotating drum pressure differential filter comprising:

a drum rotatable about an axis of rotation, said drum including at least one wall having an inner surface that at least partially defines an inner chamber, and an outer surface, said wall including at least one opening for allowing the passage of fluid from outside the drum to said inner chamber;

a drive to rotate said drum about said axis of rotation;

a source of differential pressure to provide a lower pressure in said inner chamber than outside said drum;

a container for containing a sample medium having components to be separated, said container being positioned with respect to said drum such that, in operation, said drum is rotated about said axis of rotation and at least a portion of a layer of filter medium applied to the outside surface of said drum rotates within the container to contact a sample medium disposed within the container;

a scraper adapted to be positioned adjacent said drum for scraping a layer of filter medium from said drum; and

an applicator adapted to be positioned adjacent said drum between said scraper and said container for directing a layer of filter medium toward said outer surface,

[The filter of claim 4,] wherein said applicator comprises at least one nozzle, a pressurized gas conduit, a pressurized filter medium conduit, and a nozzle that combines pressurized gas from said pressurized gas conduit with pressurized filter medium from said pressurized filter medium conduit, to form a spray.

9. (Amended) The filter of claim [3] 5, wherein filter medium is circulated through said pressurized filter medium conduit.